APPENDIX 7
NARRATIVE DESCRIPTION – PROCESS FLOW DIAGRAM – PLOT PLAN – MAP – DUST CONTROL PLAN

APPENDIX 7
DESCRIPTION OF PROPOSED PROJECT

Toquop Energy, LLC (Toquop Energy) is proposing to construct and operate a new coal-fired electric power generating facility to be located approximately 14 miles northwest of Mesquite in Lincoln County, Nevada. The proposed Toquop Energy Project (TEP) will generate up to 750 megawatts (MW) (gross) of electricity, and will be fueled by subbituminous coal from the Power River Basin. Construction is proposed to begin in July 2008, with operation projected to begin in late 2012.

The description that follows is based upon extensive project planning and development of engineering designs for a relatively complex project. The numerical projections of quantities and capacities contained in this project description are design or engineering estimates based upon detailed analysis of requirements for the TEP. Selected specific estimates may change in the course of additional reviews and design refinement. However, major changes in the overall project design are not expected at this time.

7.1 Power Plant

The proposed TEP will include one pulverized coal (PC), supercritical boiler and a steam turbine generator capable of generating 750 MW (gross) of electric power. Major systems include power generating and transmission, materials handling, heat rejection (cooling), and air emissions control. Schematic diagrams of these systems, which are described in more detail in the following sections, are included with this appendix. A facility site plan is included as part of this appendix.

7.1.1 Site Layout and Process Summary

The power plant site will be accessible via a proposed new access road from Interstate 15 to the plant site, along what is currently Halfmile Wash Road. In addition, fuel for the TEP will be transported to the site via a proposed railroad with a spur from the Union Pacific Rail Road to the TEP unloading station at the proposed plant site.

The plant site will comprise the following principal project facilities:

- Power generation and transmission equipment;
- Coal and materials receiving, handling, and storage facilities;
- Heat rejection (cooling) facilities;

- Air emissions control systems; and
- Ash, gypsum and quicklime storage and handling facilities.

7.1.2 Power Generation Equipment

7.1.2.1 Primary Power

The project will operate one supercritical, PC-fired boiler. PC combustion is the most commonly used method of combustion in coal-fired power plants. It is a well-proven, reliable, and cost-effective technology for power generation in utility-scale applications. While the majority of the coal-fired power generation facilities in the United States (U.S.) use a sub-critical steam cycle, Toquop Energy has selected a supercritical steam cycle. The advantages of the supercritical steam cycle include higher efficiency, lower emissions, and reduced fuel consumption. Use of a once through, supercritical steam cycle and other design features will enable this plant of be one of the most efficient dry cooled steam electric plants ever built in the U.S. with a net efficiency greater than 40 percent based on the lower heating value of the fuel. State-of-the-art emission controls will be used to minimize emissions of potential air pollutants. Water consumption will be minimized by using a Heller system, dry natural draft cooling tower.

The boiler will include six coal silos (five active, one spare) for short-term coal storage. Upon leaving the coal silos, the coal will be pulverized and fed into the low-oxides of nitrogen (NO_X) coal burners for combustion. The coal burners and the boiler will be designed to avoid hot spots that could lead to excessive generation of NO_X. The heat from the combustion of the coal will serve to generate steam at supercritical pressure and high temperature for increased cycle efficiency and lower relative emissions.

Steam generated in the boiler will drive its individual steam turbine generator. The steam expands through the steam turbine, such that the thermal energy contained in the steam is converted to the mechanical energy required to rotate the steam turbine-generator shaft. The generator, which is directly coupled to the steam turbine, uses this mechanical energy to produce electricity. After releasing all economically-available energy, the steam exhausts from the steam turbine-generator and flows into the condenser, where waste heat in the steam is removed to condense the steam and form water. The condensed water is then pumped back to the boiler to complete the cycle. A process flow diagram of the steam boiler and selective catalytic reduction (SCR) system is included as part of this appendix.

7.1.3 Auxiliary Boilers

Two auxiliary steam boilers will meet the steam demand during start up of the main steam generators (auxiliary steam consumers: dearator, steam air heater, turbine seals, etc). The auxiliary steam generators are of fire-tube/smoke-tube type (package boilers, shell type). Each auxiliary steam generator has a heat input capacity of 86.4 million British thermal units/hour. Emission will be controlled by only burning ultra low sulfur (0.0015 percent sulfur) distillate oil, low-NO_X burners, good combustion, and limiting operation to 550 hours/year. Support facilities required to operate the auxiliary boilers include water supply and storage, fuel delivery and storage, and an electrical distribution system. Fuel will be delivered by truck or rail to a 1,060,000-gallon diesel fuel tank.

7.1.4 Emergency Diesel Generator and Firewater Pump Engine

There will be one emergency diesel generator with an output capacity of 1,482 horsepower, and one firewater pump engine with an output capacity of 284 horsepower. These units will only operate during emergency situations and for readiness maintenance checks. Emission will be controlled by only burning ultra low sulfur (0.0015 percent sulfur) distillate oil, through good combustion practices, and limiting normal operation to a maximum of 100 hours/year for each engine.

7.1.5 Materials Handling

7.1.5.1 Coal Receiving, Storage, and Handling

Coal will be delivered to the facility via train and will be unloaded from bottom dump rail cars into an underground bunker. A bottom dump unloading, consisting of two 2,500 tons/hour stations, will be used to unload the coal to an underground hopper at a combined 5,000-tons/hour rate. The underground hopper and belt feeders will load coal onto a 5,000-tons/hour conveyor belt that will transfer the coal to a transfer tower. The transfer tower may direct coal to the power plant coal crusher, active coal pile, and/or inactive coal pile.

The active coal pile is sized for 30 days of coal storage. Stack-out of the active coal pile will be performed by an automatic in-line, track mounted, stacker-reclaimer capable of 5,000 tons/hour stacking and 1,000-tons/hour reclaim using either of two redundant reclaim conveyor belts. The active coal pile can be stacked and reclaimed without the use of mobile equipment (bulldozers). Particulate emissions from the coal pile will be controlled by wet suppression.

The inactive storage will contain a 90-day supply of coal with the ability to expand to a 180-day supply of coal adjacent to the active storage pile. Coal supplied to the inactive pile will come from the transfer tower via conveyor capable of 5,000 tons/hour discharging through an automated telescoping discharge chute to minimize emissions. Stack-out of the inactive coal pile will be performed with mobile equipment consisting of front end loaders and bulldozers. Emissions from the inactive pile will be controlled by wet suppression and compaction. Reclaim from the active coal pile also will be with mobile equipment to an in-ground grizzly and hopper discharging to a 1,000-tons/hour conveyor that feeds the transfer tower. Front-end loaders will assist the reclaiming of coal from spills or maintenance and return it to the inactive storage pile or in ground hopper.

Two conveyor belts rated at 1,000 tons/hour each (one in operation, one backup) will be used to convey the reclaim coal to the coal crusher building. In the coal crusher building, coal from the 1,000-tons/hour reclaim belts will empty into a 150-ton surge bin. In the coal crusher building, one coal crusher assembly rated at 1,500 tons/hour will crush the coal into a size suitable for combustion. From the coal crusher building, one conveyor belt rated at 1,000 tons/hour (with a second 1,000-tons/hour conveyor belt serving as backup) will transfer the coal to the boiler tripper deck. In the coal transfer tower, coal will be transferred to a 1,000-tons/hour tripper conveyor, which will load the five, 360-ton coal bunkers. A sixth coal bunker is provided as a spare. Particulate emissions from the coal unloading, transfer and handling system operations will be controlled by wet suppression and/or baghouses.

7.1.5.2 Storage Silos

In addition to the PC boiler, the primary TEP operation includes the following storage silos:

- One fly ash storage silo;
- One bottom ash storage silo;
- Two quicklime storage silos;
- One gypsum storage silo;
- One activated carbon storage silo; and
- One byproduct silo for landfill.

Fly ash from the PC boiler exhaust stream will be captured in the main boiler baghouse. The fly ash will be pneumatically conveyed from the baghouse hoppers to the fly ash storage silo. Emissions from the pneumatic loading into the fly ash silo will be controlled by a vent fan filter. The storage silo is designed for 10 days of storage at 100 percent power output of the plant. Fly ash may be dustless transferred from the storage silo through gravity feed using an extension tube into either railcar or truck for beneficial reuse within a negative pressure transfer bay to ensure dustless load-out. The transfer bay will be equipped with a vent fan filter. Fly ash that bypasses the storage silo will be transferred to a byproduct silo.

Bottom ash will be removed from the dry bottom boiler, crushed, and pneumatically transported into a bottom ash storage silo with a 10-day storage capacity. From the storage silo, this material could be loaded dry into pneumatic trucks or railcars for shipping for beneficial reuse using a dustless load out. Emissions from the pneumatic loading into the bottom ash silo will be controlled by a vent fan filter. Bottom ash that bypasses the storage silo will be transferred to the byproduct silo.

As an integral part of the wet scrubber system, quicklime will be delivered to the plant via trucks. The quicklime will be transferred pneumatically to the quicklime storage silos with 4-day capacities. The quicklime storage silos will have their own vent fan filters to control particulate emissions that occur during transfer operations. Quicklime from the storage silos is transferred pneumatically to the quicklime preparation building through an enclosed process. The quicklime is mixed with water and stored in slurry tanks near the wet flue gas desulfurization system prior to injection into the flue gas for SO_2 control. This is a dustless operation. After the quicklime captures sulfur, it becomes synthetic gypsum and must be removed from the process through filters and driers.

Gypsum will be removed from the wet scrubber, dried and conveyed to the gypsum storage silo with a 10-day capacity. Emissions from loading the gypsum silo will be controlled by a vent fan filter. From the storage silo, the gypsum will be transferred to trucks or railcars for shipping to purchasers. Gypsum that bypasses the storage silo will be sent to the byproduct silo.

The byproduct silo receives bottom ash, fly ash, and gypsum that bypass their storage silos due to capacity constraints on their storage silos, not meeting beneficial reuse specifications, system transients or upsets. The byproduct silo is equipped with a vent fan filter, and has a 500-ton surge capacity to feed a pug mill. Two pug mills are installed for redundancy and each is rated for 100 percent capacity. A pug mill mixes the combustion byproducts and water to 18 percent moisture content prior to transfer into trucks for disposal at the on-site landfill. Fugitive particulate emissions may occur during the transfer from the pub mill to the trucks, but will be minimized by the moisture content of the byproduct.

An activated carbon silo is proposed to provide 4 days of storage capacity for activated carbon, which would act as part of a mercury/multi-pollutant control system. The activated carbon will be delivered to the plant via trucks. The activated carbon will be pneumatically transferred to the activated carbon storage silo, with particulate emissions that occur during transfer operations being controlled by a vent fan filter. The activated carbon will then be fed to the boiler flue gases via a conveyor and blower system. Particulate emissions occurring during the delivery of the activated carbon to the boiler will be controlled by the main boiler baghouse.

7.1.6 Heat Rejection (Cooling) System

The Heller-type hybrid cooling tower is used to minimize water consumption. A direct contact jet condenser will be used with a Heller dry cooling tower system. In this cooling system, the process steam exhausting from the steam turbine is fed to the condenser and condensed by direct impingement with the cooling water coming from the closed cooling cycle. The blended cooling water and condensate are collected in the hot-well and extracted by circulating water pumps. Approximately 3 percent of this flow – corresponding to the steam condensed – is fed to the boiler feed water system by condensate pumps. The major part of the flow is returned to the cooling tower for recooling. The cooling duty is performed by the cooling delta-type heat exchangers, divided into parallel sectors at the base of a hyperbolic cooling tower. A dry natural draft is induced through the cooling tower due the differential temperature and the shape of the tower.

When the ambient temperature is below 80 degrees Fahrenheit (°F), the cooling tower operates like a natural draft dry cooling tower. When the temperature exceeds 80°F, the facility has the option of applying water oversprays on the heating surfaces inside of the cooling tower to provide additional cooling. This type of cooling tower has no particulate emissions.

Additional heat transfer surface may be used internal or external to the tower which optimizes the cycles of the open cooling water spray at temperatures greater than 80°F.

7.1.7 Ash Disposal Area

An on-site ash disposal area of approximately 150 acres will be used to dispose of fly ash, bottom ash and gypsum from the main boiler that may not be recycled. The fly ash, bottom ash, and gypsum will be mixed with water as it is unloaded from the byproduct silo into trucks, which will then transport the combustion by products to the ash disposal area located on the eastern portion of the property. The trucks will unload the byproducts in the active disposal area that will be limited to no more than 10 acres at any one time.

7.1.8 Fuel and Oil Storage Tanks

One 1,060,000-gallon fuel oil storage tank; one 4,000-gallon fuel oil storage tank; one 1,000-gallon gasoline storage tank; two 14,000-gallon lube oil storage tanks; two 3,000-gallon lube oil storage tanks; a 1,000-gallon used oil storage tank; and one 300-gallon fuel oil storage tank will be located onsite. These tanks primarily will contain No. 2 fuel oil (commercial grade) to supply the auxiliary boilers, emergency generator, fire-water pump engine and for startup of the pulverized coal-fired boilers. There also is a gasoline tank for plant equipment and a lube oil sump for the main boilers and generators.

7.1.9 Air Emissions Control System

7.1.9.1 Primary Power Plant Air Emissions Control

The air emissions control system for the TEP will be designed to meet Best Available Control Technology (BACT) requirements, as implemented under the air permitting regulations, to limit emissions. Emissions control will be provided for the main boiler and the coal and material handling systems. The determination of BACT is discussed in Appendix 10.

The exhaust from the boiler will be treated by controls designed to minimize emission of pollutants to the atmosphere. The exhaust gases will pass through a SCR unit that will use ammonia and a catalyst to convert NO_X into molecular nitrogen and water vapor. If necessary, powdered activated carbon (PAC) then would be injected into the gas stream to capture trace amounts of mercury. PAC injection would be followed by a fabric filter, or baghouse, which would capture the reacted PAC and particulate emissions from the flue gas. The system then will route the exhaust gases through a wet scrubber where the flue gas will be passed through a sprayer system with a solution of saturated calcium carbonate (quicklime). The chemical reaction between SO_2 in the gas and the calcium in the scrubber slurry will remove sulfur compounds from the flue gases. These systems are described below.

After treatment, boiler flue gases will be routed to a main stack for exhausting to the atmosphere. The following components will be installed to treat flue gases.

- Low-NO_X burners and an SCR system will be used for removal of NO_X from the gases. NO_X is formed during combustion and also is formed from nitrogen compounds in the fuel. The boiler will be designed to minimize NO_X formation; the exhaust will be treated to further reduce emissions. In the SCR system, a specifically designed catalyst will be installed, and ammonia will be mixed with the exhaust gas in a ratio that will be adjusted for the NO_X in the flue gas. As the ammonia and NO_X pass the catalyst, the NO_X will be reacted and reduced to form molecular nitrogen and water vapor. There is some minor amount of unreacted ammonia "slip" in the exhaust; however, this emission will be minimized through operational controls.

- An activated carbon injection system is included in this application as an option for controlling mercury emissions, especially elemental mercury, in the flue gases. Mercury adsorbs to particles of activated carbon, which are then trapped in the fabric filter and routed to a landfill for disposal. If there are no customers for the fly ash, the existing fabric filter system may be used to capture the spent activated carbon. Alternately, a separate particulate removal device may be used to remove the fly ash prior to the injection of activated carbon. Mercury removal in this system will depend on the total amount of carbon used, flue gas temperature, mercury speciation, flue gas composition, and type and amount of activated carbon used. PAC storage and handling equipment and operations are included in this air permit application, but will not be installed unless required to meet mercury emission limits.

- A fabric filter system will collect particulate matter emissions (fly ash) from the flue gases. The system will consist of multiple baghouse compartments, each containing an array of fabric bags that will be used to capture the fly ash as the flue gas passes through the filter bags. Periodically, each compartment will be cleaned by pulsing the bags to dislodge particulates into a fly ash hopper beneath the compartment. Once a compartment is cleaned, cleaning will proceed to cycle through each remaining compartment. Collected fly ash will be routed from the fly ash hopper to a fly ash silo for storage, and ultimately for shipment offsite. Fly ash will be sold to customers in the concrete industry, or it may be mixed with other coal combustion products (CCP) for landfill disposal.

- A flue gas desulfurization wet scrubber system will be installed to control emissions of SO_2 and smaller amounts of acid gases. SO_2 is formed during combustion from naturally occurring sulfur contained in coal. In the scrubber system, calcium carbonate (quicklime) will be dissolved in water to form scrubber slurry, which will be sprayed into a scrubber chamber. The flue gases will be transported through the chamber and mixed with the scrubber slurry spray. The design of the scrubber chamber will promote the mixing of the small slurry droplets with the flue gases, thereby promoting absorption of the SO_2 from the gas into the slurry spray droplets. The chemical reaction will form calcium sulfate (the basic component of gypsum, which is used in commercial wallboard or sheetrock). The scrubber slurry solution will be recycled in the system unit is reaches saturation. The scrubber slurry will be concentrated, filtered, and the gypsum that is generated will be dewatered for transportation offsite to gypsum customers or for disposal in the CCP landfill.

7.1.9.2 Support Systems Air Emissions Control

As previously discussed, quicklime will be delivered to the site by truck or rail car and stored in silos for use in the wet scrubber system. Ammonia will be delivered by rail car or truck and stored in large pressurized storage tanks for feed into the SCR system. If used, activated carbon for the PAC system would be delivered to the site by truck, transferred to a silo for storage, and fed to the exhaust stream for control of mercury emissions in the flue gases.

In addition to the main unit at the power plant, air pollution controls will be applied to other potential sources of emissions. The controlled units will include the materials handling operations for coal, ash, quicklime, and activated carbon. Emission reduction measures for the auxiliary boiler are discussed in Section 7.1.3, Auxiliary Boilers.

Fugitive particulate emissions from coal handling will be controlled by selective water or fogging sprays and by baghouses that will be connected to the enclosed handling system. The baghouses will draw air through the coal handling operations and partially enclosed conveyors and capture the particles from that air stream by drawing it through the bag filters. Baghouses will be attached to the transfer house, coal crusher, and tripper conveyor system. Baghouses will be monitored for pressure drop to ensure that the individual bags are not breached or plugged. Material collected from the bag cleaning operations will be fed back into the coal stream and ultimately will be fed to the boiler.

Wet suppression techniques will be applied at several points in the handling of the coal. This technique will involve fogging sprays during coal unloading, and spraying the surface of the coal storage piles with water and, if necessary, surfactants to inhibit the formation of wind-blown dust (fugitive dust) from those piles. Shrouds will be used for all transfer conveyors to eliminate particulate emissions from these operations.

SURFACE AREA DISTURBANCE
APPLICATION FORM
CLASS I OPERATING PERMIT TO CONSTRUCT

1. Project Name Toquop Energy, LLC / Toquop Energy Project

2. Surface Area Disturbance Location:

   Overall disturbance location description:

   Township 11S; Range 69E; Section 36;

   Township____________________; Range __________________; Section ___________________;

   Township____________________; Range __________________; Section ___________________;

   Township____________________; Range __________________; Section ___________________;

   Township____________________; Range __________________; Section ___________________;

   Township____________________; Range __________________; Section ___________________;

3. Indicate the total number of acres to be disturbed for the project: 640 acres

4. Nevada Administrative Code 445B.22037 requires fugitive dust to be controlled (regardless of the size or amount of acreage disturbed), and requires an ongoing program, using best practical methods, to prevent particulate matter from becoming airborne. All activities which have the potential to adversely affect the local air quality must implement all appropriate measures to limit controllable emissions. Appropriate measures for dust control may consist of a phased approach to acreage disturbance rather than disturbing the entire area all at once; using wet suppression through such application methods as water trucks or water sprays systems to control wind blown dust; the application of soil binding agents or chemical surfactant to roadways and areas of disturbed soil; as well as the use of wind-break or wind-limiting fencing designed to limit wind erosion of soils.

5. Please include a dust control plan in Appendix 7 if the total number of acres to be disturbed in number 3 above equals or exceeds 20 acres. The dust control measures discussed above should be considered in the preparation of the required dust control plan. Two documents entitled "SAD Dust Control Plan Preparation Guidelines" and "SAD Fugitive Dust Control Plan" can be downloaded at www.ndep.nv.gov/bapc under Downloads. The acceptance of the dust control plan by the Bureau of Air Pollution Control does not limit the permit holder's need to control fugitive dust from the disturbance and its related activities, nor from putting into effect an ongoing program for using the best practical methods of dust control.

SURFACE AREA DISTURBANCE PERMIT
FUGITIVE DUST CONTROL PLAN

I. COMPANY INFORMATION				
COMPANY NAME:	Toquop Energy, LLC	PERMIT NUMBER: TBD		
BUSINESS ADDRESS:	14miles northwest of Mesquite	Mesquite	Nevada	Lincoln
	(STREET)	(CITY/TOWN)	(STATE)	(COUNTY)
MAILING ADDRESS:	Three Riverway, Suite 1100	Houston	Texas	77056
	(STREET/P.O BOX)	(CITY/TOWN)	(STATE)	(ZIP CODE)
PHONE NUMBER:	713-499-1135	FAX NUMBER:	713-499-1167	

II. RESPONSIBLE OFFICIAL (R.O.)				
R.O. NAME	Dirk Straussfeld	TITLE	Executive Vice President, Toquop Energy, LLC	
BUSINESS ADDRESS:	Three Riverway, Suite 1100	Houston	Texas	77056
	(STREET)	(CITY/TOWN)	(STATE)	(COUNTY)
MAILING ADDRESS:	Three Riverway, Suite 1100	Houston	Texas	77056
	(STREET/P.O BOX)	(CITY/TOWN)	(STATE)	(ZIP CODE)
PHONE NUMBER:	713- 499-1156	FAX NUMBER:	713-499-1167	

III. PHYSICAL PLANT					
PROJECT ADDRESS:	14miles northwest of Mesquite	Mesquite	Nevada	Lincoln	
	(STREET)	(CITY/TOWN)	(STATE)	(COUNTY)	
MAILING ADDRESS:	Three Riverway, Suite 1100	Houston	Texas	77056	
	(STREET/P.O BOX)	(CITY/TOWN)	(STATE)	(ZIP CODE)	
PHONE NUMBER:	713-499-1135	FAX NUMBER:	713-499-1167		
MAJOR X-STREETS:	North of Interstate 15 and Halfway Wash Road				
SECTIONS: 36	TOWNSHIP:	11S	RANGE:	69E	
UTM:	13,422,609 N (feet) 2,450,288 E (feet)				
PROJECT MAPS: (MARK TYPE OF MAP ATTACHED)	☐ (TRACT)	☒ (SITE)	☒ (TOPOGRAPHIC)	☐ (OTHER -)	

IV. ACKNOWLEGEMENT OF ENVIRONMENTAL CONTROL REQUIREMENTS BY R.O.

I, Dirk Straussfeld, the Responsible Official for Toquop Energy, LLC, have: (1) read and understand the provisions of Nevada Administrative Code (NAC) Section 445B.22037 "Emissions of Particulate Matter: Fugitive Dust" which requires that we prevent controllable fugitive dust to become airborne on a 7-day/24-hour /day basis at our Project's site; and , (2) read and understand the terms and conditions of our Project's Nevada Division of Environmental Quality Bureau of Air Pollution Control Permit AP____TBD______________.
(Permit Number)

Signed ____________________ Date 12/8/06
(R.O. Signature)

SURFACE AREA DISTURBANCE PERMIT
FUGITIVE DUST CONTROL PLAN

V. PROJECT OPERATIONS

Description of Project Operations:

See project description in the overview portion and Appendix 7 of this permit application.

VI. FUGITIVE DUST CONTROL - BEST PRACTICAL METHODS

Best Practical Methods for controlling fugitive dust (Project Site): The best practical methods (BPMs) to be used for controlling fugitive dust generated at this Project's disturbed areas are as follows. This is not an all inclusive list, other BPMs may also be appropriate for this section (check appropriate BPMs):

- ☒ Use of water trucks to spray water on disturbed areas on a regular basis
- ☐ Pre-watering of areas to be disturbed (including all unpaved onsite roads and staging areas)
- ☐ Graveling of roadways, storage areas and staging areas
- ☐ Posting and limiting vehicle speeds to 10-15 miles per hour
- ☐ Use of wind fences to reduce wind impacts
- ☐ Cessation of all operations when winds make fugitive dust control difficult
- ☒ Fencing or berming to prevent unauthorized access to disturbed areas.
- ☐ Application of water sprays on material storage piles on a regular basis
- ☐ Covering material storage piles with tarpaulin or geo-textiles; tenting
- ☐ Use of overhead water spray rack or water hoses to water down uncovered trucks transporting processed materials prior to leaving Project boundaries.
- ☒ Subcontractors: Any and all subcontractors (including truck drivers) informed of their responsibilities for the control of fugitive dust while they are on the project site (including haul roads to and from the site). In addition, they will be advised of the best practical methods for controlling their fugitive dust as well as keeping off adjacent areas not covered by the project's permit.
- ☐ Training of construction equipment operators to recognize fugitive dust generation and having the authority to shut down operations until water truck arrives and sprays water on the disturbed areas
- ☒ Equipment Operator and/or Responsible Official has read and understands the requirements in the Project's Surface Area Disturbance Permit and Plan
- ☒ Other Applicable BPM: Use of water trucks during surface disturbing construction activities that cause fugitive dust.
- ☒ Other Applicable BPM: Apply Dust Suppression on Haul Roads
- ☐ Other Applicable BPM: ____________________

SURFACE AREA DISTURBANCE PERMIT
FUGITIVE DUST CONTROL PLAN

VII. PROJECT FUGITIVE DUST/EMISSIONS RESOURCES INFORMATION

Water Trucks: Water trucks may be owned or rented. In the event that one or more water truck(s) necessary for control of fugitive dust (owned, rented or leased) becomes inoperable, additional water truck(s) will be rented or leased for until such time the water truck(s) are operable. Operable water truck (s) must be available on 7-day/week, 24-hour/day basis.

Number of Water Trucks: TBD

Water Truck # 1		**Capacity Gallons:**	Approximately 4500
Water Truck # 2		**Capacity Gallons:**	
Water Truck # 3		**Capacity Gallons:**	

Location of water supply for control of fugitive dust: water wells

Water Truck and Construction Equipment Operational Log: the daily operations log book for recording the operation of the water truck and construction equipment is maintained on the Project site. The log contains the following information:

- Hours of operation for each water truck and construction equipment (front loader, scraper, etc.) used onsite.
- The daily quantity of water used for fugitive dust control purposes.
- Starting and ending times for the workday.
- Record of water truck (including rental water truck) and construction equipment maintenance, malfunctions and repairs

VIII. NOTIFICATION

Excess Emissions: The R.O. and equipment operators will be given USEPA Method 9 visual emission training (or equivalent, as determined by NDEP) to recognize when the permit's limits are being exceeded and procedures to follow to bring the company back into compliance. Training records shall be kept with the Project's Daily Operations Log.

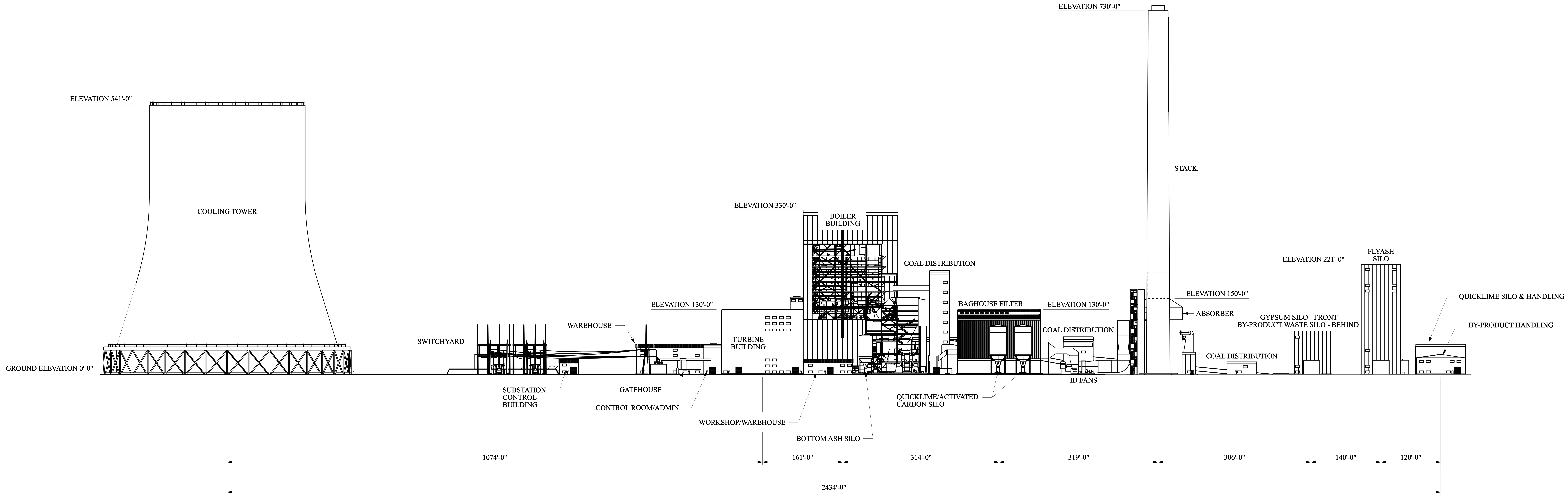
IX. TRAINING

Training Requirements: The following training requirements are <u>recommended</u> as an aid in maintaining compliance with permit terms and conditions and are not mandatory. It is recommended that the R.O. and/or selected equipment operators be given USEPA Method 9 visual emission training (or equivalent, as determined by NDEP) to recognize when the facility's permit's opacity limits are being exceeded and procedures to follow to bring systems back into compliance. It is recommended that all training records be kept with the facility's Process and Emission Control Equipment Operational Log.

X. PLAN REVISION

Plan Revision Requirements: In the event there are changes in the operation of the Project, modifications made to the Project's Air Quality Operating Permit or changes to the Nevada Administrative Code affecting this plan, the plan shall be revised to reflect those changes and modifications and resubmitted to the Nevada Division of Environmental Protection for review and evaluation.

Plan Date:	December 8, 2006



ELEVATION
LOOKING NORTH (NOT TO SCALE)

A	ISSUED FOR INFORMATION					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT
ELEVATION VIEW LOOKING NORTH
TOQUOP POWER PROJECT
CONCEPTUAL ELEVATION
UNIT 1

DRAWN	DESIGNED	CHECKED	CHECKED
APPROVED	CADD DRAWING NUMBER	SHEET	REV
APPROVED	D012350-SITL006	01	A

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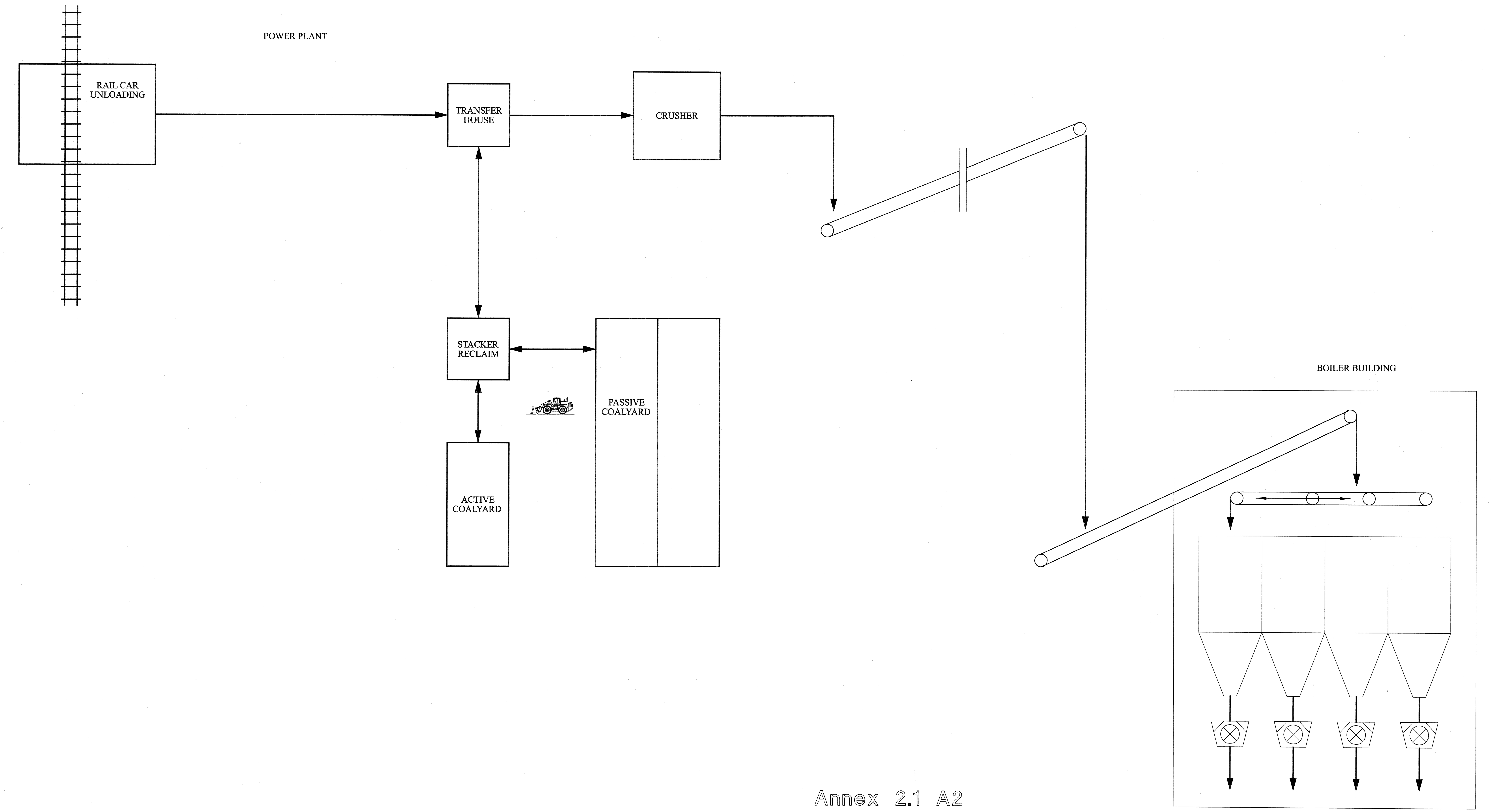

Annex 2.1 A2

NO	REVISIONS	DATE	BY	CHK	DSNR	APPR
A	ISSUE FOR COMMENT					

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT

COAL HANDLING

PROCESS FLOW DIAGRAM

DRAWN	DESIGNED	CHECKED	CHECKED
10/19/06 Len Russell	10/19/06	10/19/06	10/19/06

APPROVED	CADD DRAWING NUMBER	SHEET	REV
10/19/06	D012350-2.1 A2	01	A
APPROVED 10/19/06			

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10/19/2006
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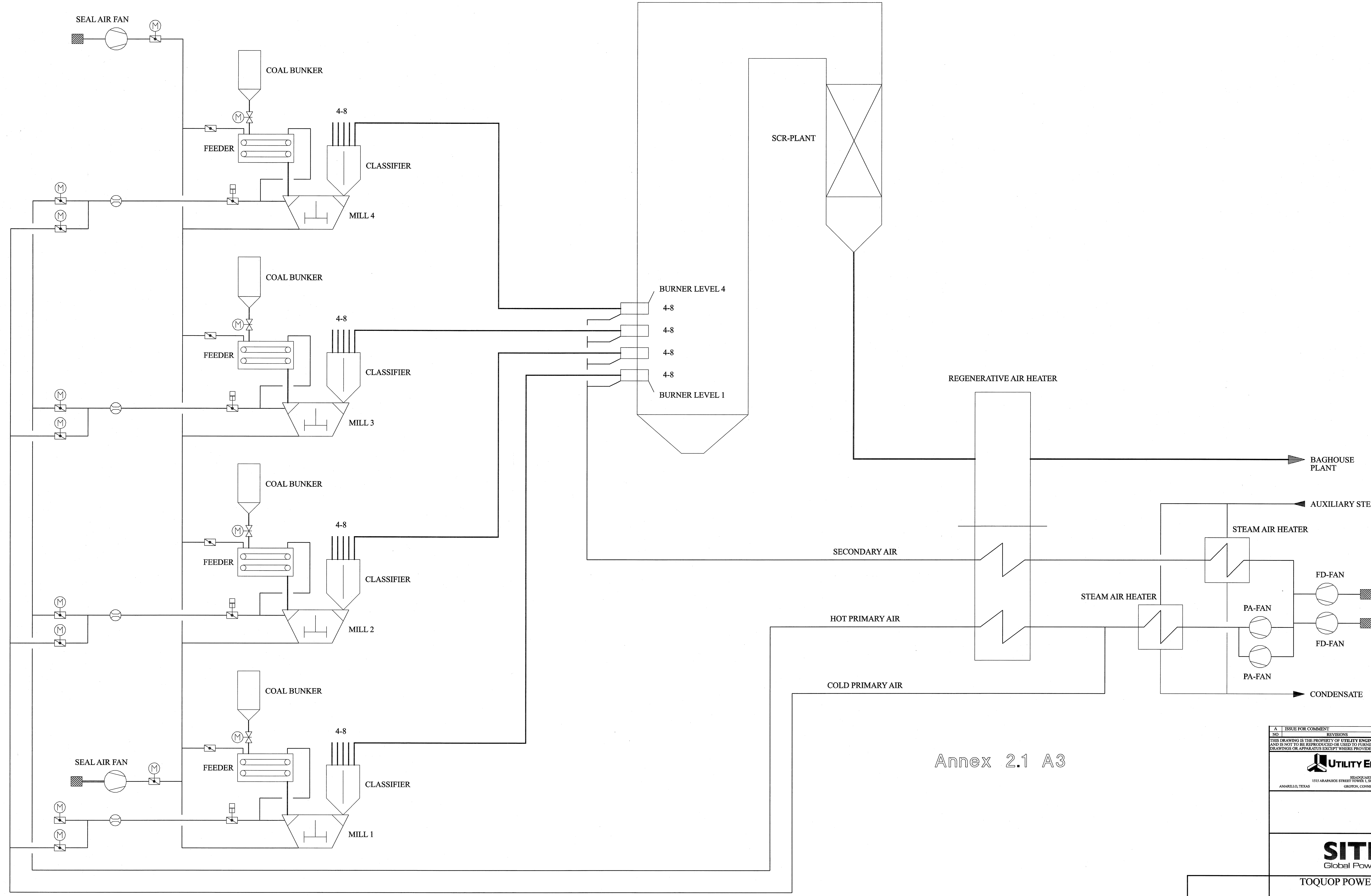

Annex 2.1 A3

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT

FIRING

PROCESS FLOW DIAGRAM

DRAWN 10/19/06 Tom Russell
DESIGNED 10/19/06
CHECKED 10/19/06
CHECKED 10/19/06
APPROVED 10/19/06
APPROVED 10/19/06

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SHEET: 01
REV: A

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10/19/2006
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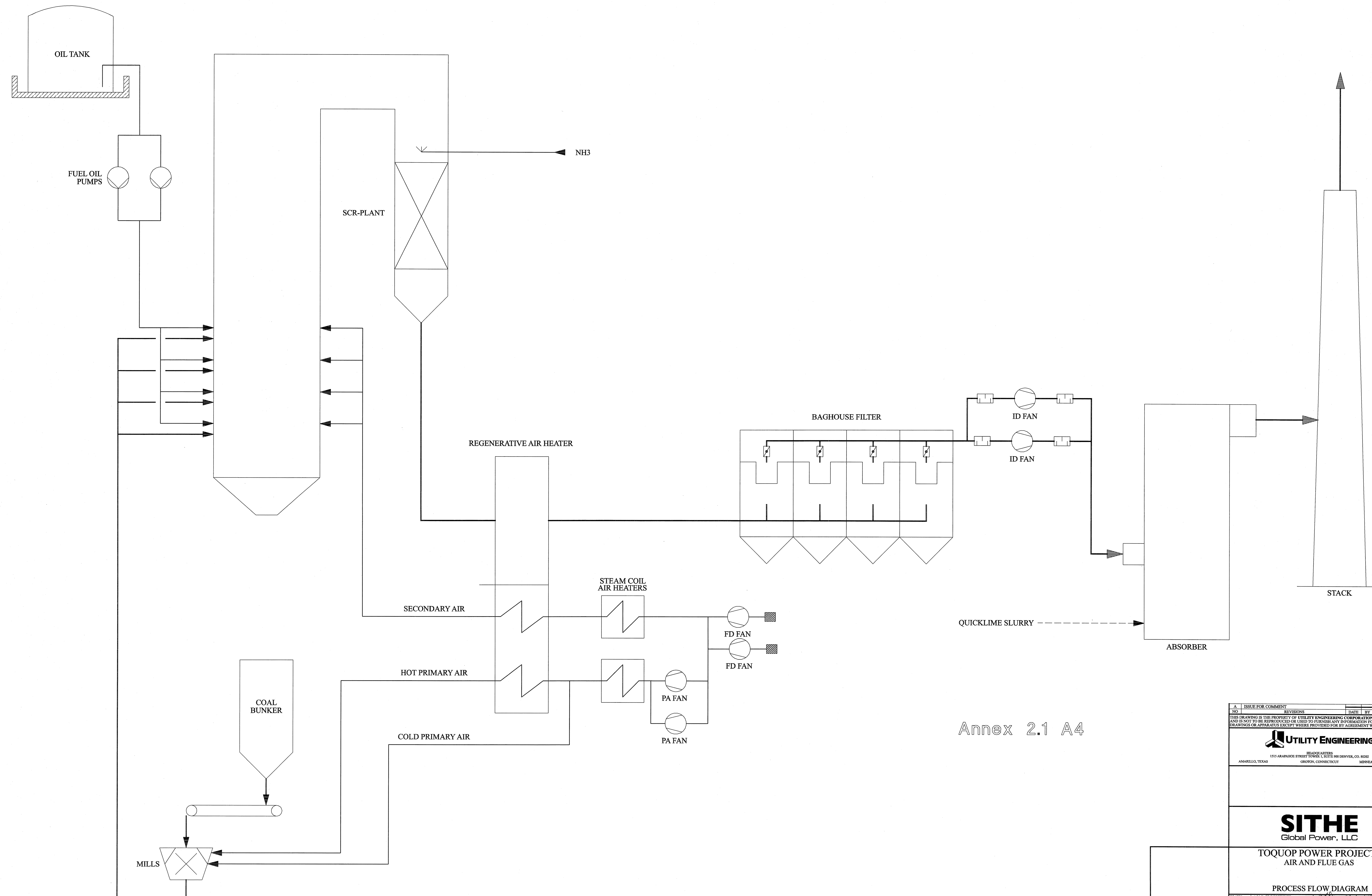

Annex 2.1 A4

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT
AIR AND FLUE GAS

PROCESS FLOW DIAGRAM

DRAWN	DESIGNED	CHECKED	CHECKED
10/19/06 Lin Russell	10/19/06	10/19/06	10/19/06

APPROVED	CADD DRAWING NUMBER	SHEET	REV
10/19/06 / APPROVED 10/19/06	D012350-2.1 A4	01	A

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10/19/2006
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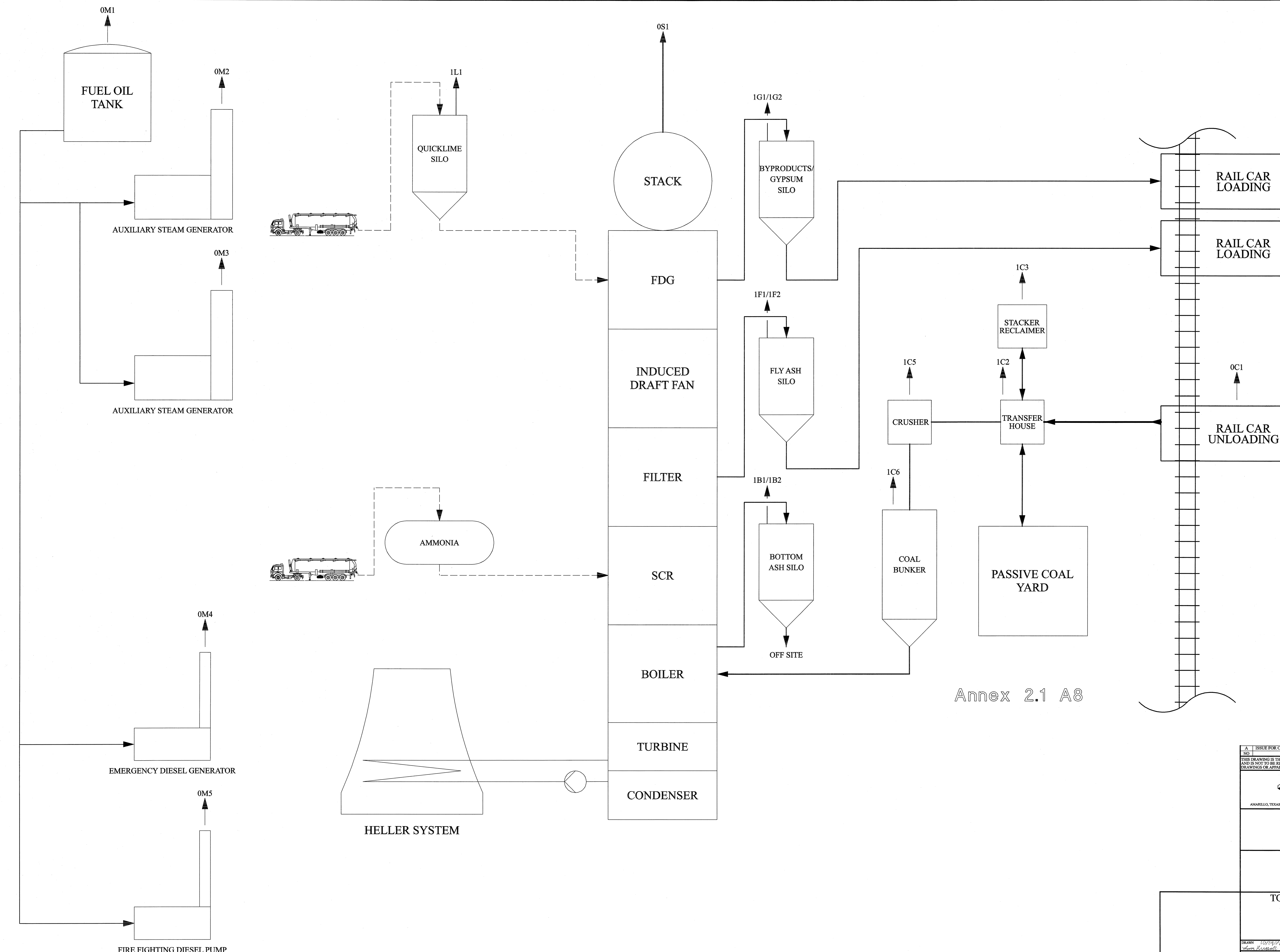

Annex 2.1 A8

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING

HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT

EMISSIONS

PROCESS FLOW DIAGRAM

DRAWN 10/19/06 | DESIGNED 10/19/06 | CHECKED 10/19/06 | CHECKED 10/19/06
APPROVED 10/19/06
APPROVED 10/19/06

CADD DRAWING NUMBER	SHEET	REV
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LemuelR
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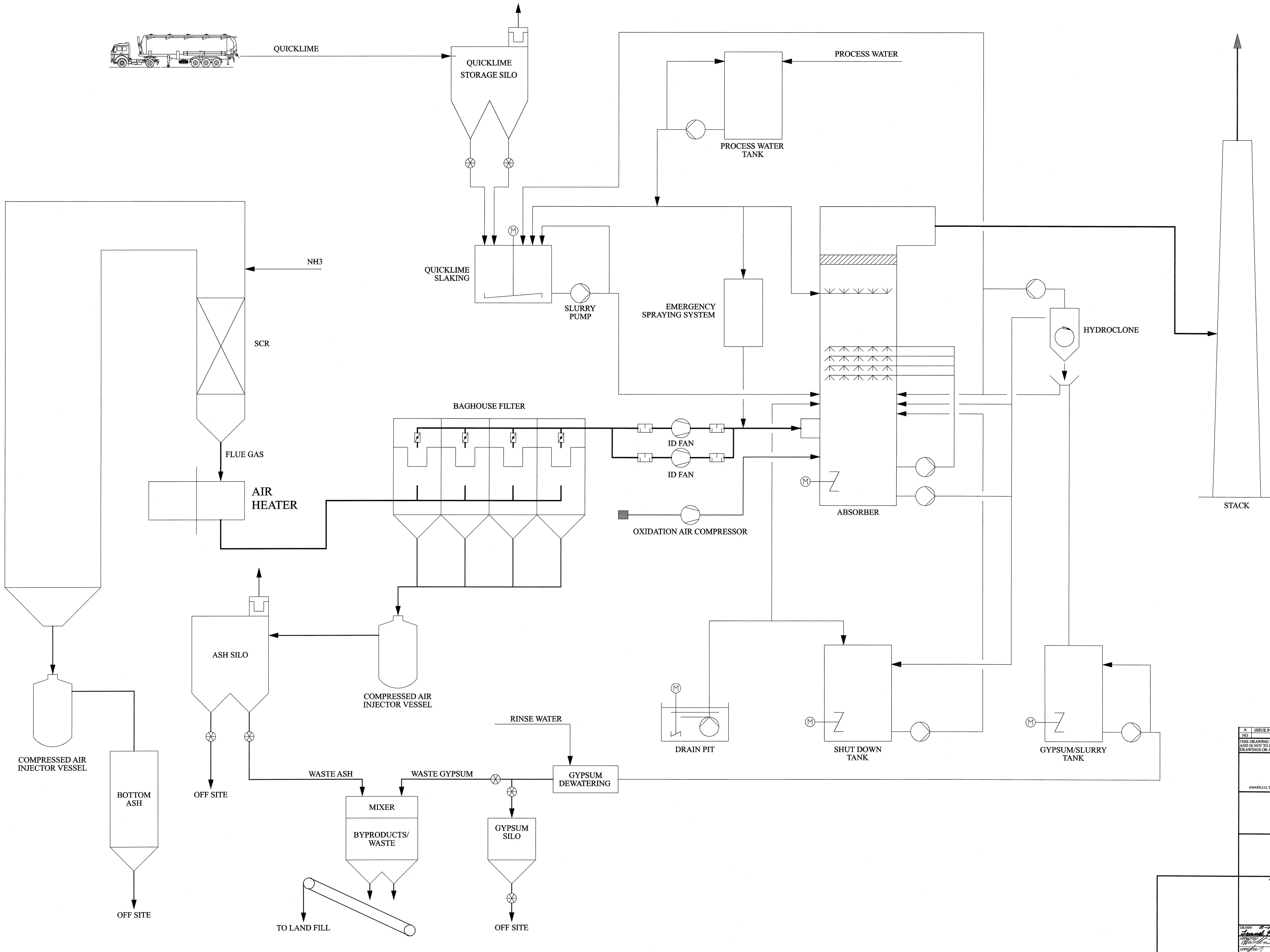

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT

FLUE GAS TREATMENT

PROCESS FLOW DIAGRAM

DRAWN 01-09-07 Lemuel Pickall	DESIGNED D. Farrell 1-9-07	CHECKED 1/9/07	CHECKED 1/9/07
APPROVED 1-9-07	CADD DRAWING NUMBER D012350-2.4 A1	SHEET 01	REV A
APPROVED 1-9-07			

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1/9/2007
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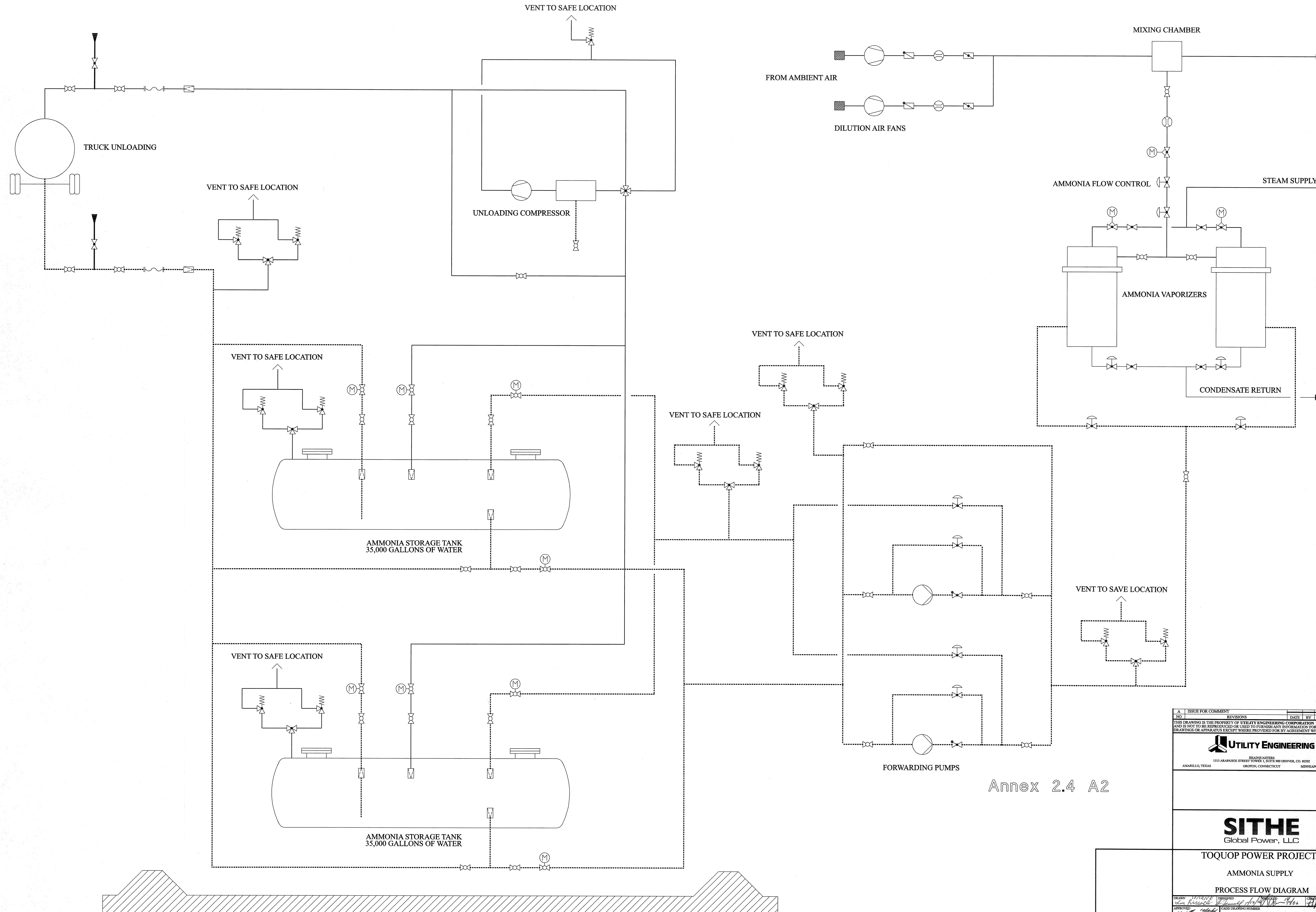

Annex 2.4 A2

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

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Global Power, LLC

TOQUOP POWER PROJECT

AMMONIA SUPPLY

PROCESS FLOW DIAGRAM

DRAWN	DESIGNED	CHECKED	CHECKED
10/19/06 Lim Russell	10/19/06	10/19/06	10/19/06

APPROVED	CADD DRAWING NUMBER	SHEET	REV
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10/19/2006
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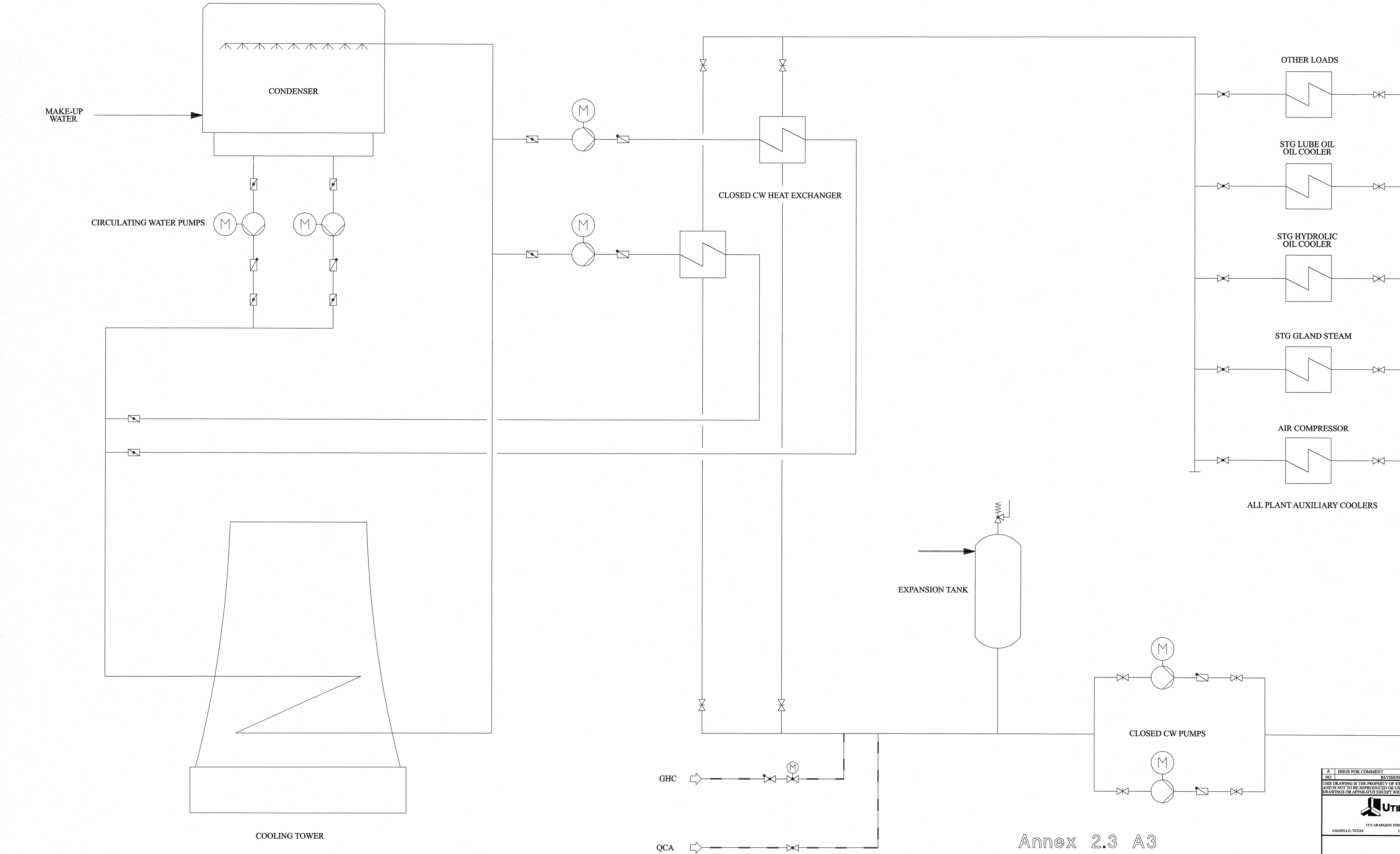

Annex 2.3 A3

A	ISSUE FOR COMMENT					
NO	REVISIONS	DATE	BY	CHK	DSNR	APPR

UTILITY ENGINEERING

HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

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Global Power, LLC

TOQUOP POWER PROJECT

CLOSED COOLING WATER

PROCESS FLOW DIAGRAM

DRAWN 10/19/06 DESIGNED 10/19/06 CHECKED 10/9/06 CHECKED 10/19/06
APPROVED 10/19/06
APPROVED 10/14/06

CADD DRAWING NUMBER D012350-2.3 A3 SHEET 01 REV A

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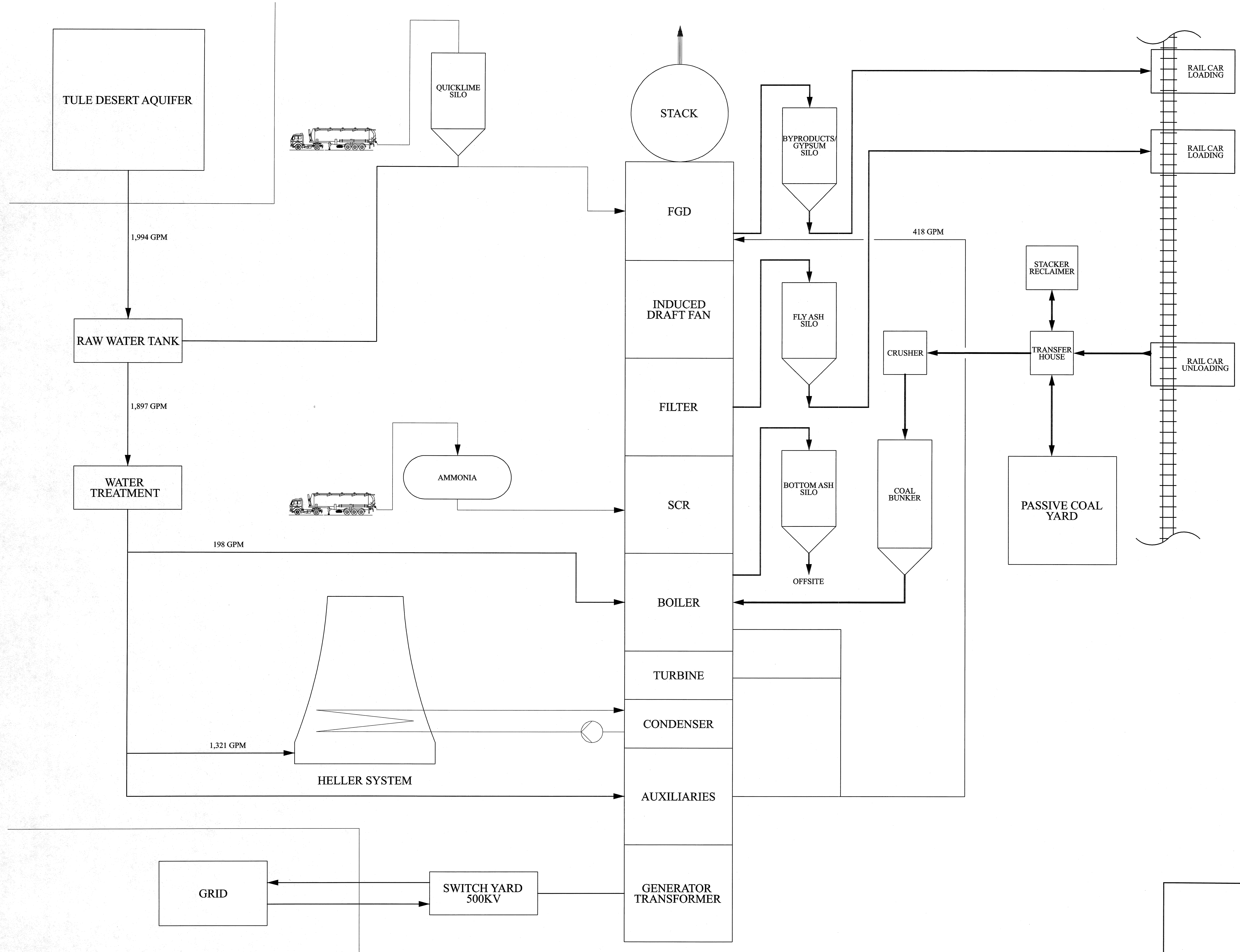

GENERAL NOTES

NO	REVISIONS	DATE	BY	CHK	DSNR	APPR
A	ISSUE FOR COMMENT					

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT

WATER AND WASTE WATER

PROCESS FLOW DIAGRAM

DRAWN 10/19/06 Tim Russell | DESIGNED 10/19/06 | CHECKED 10/19/06 | CHECKED 10/19/06
APPROVED 10/19/06
APPROVED 10/19/06

CADD DRAWING NUMBER D012350-2.5 A3 | SHEET 01 | REV A

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10/19/2006
LemuelR
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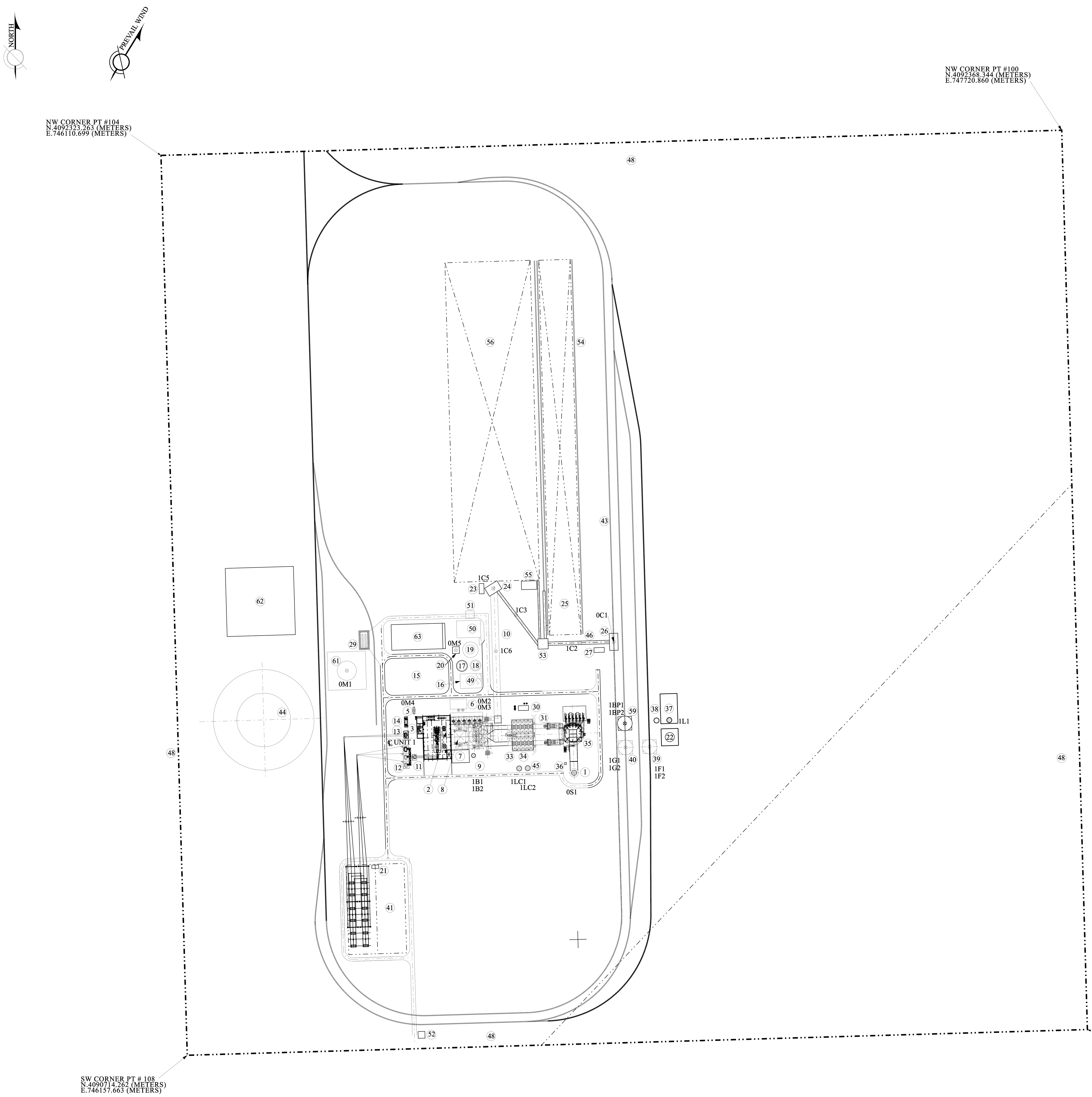

ITEM NO.	DESCRIPTION	UTM COORDINATES PER UTM,NAD83 Z12W (METERS)
0C1	COAL RAILCAR UNLOADING	N.4091453.593 E.746920.026
OM1	FUEL OIL STORAGE	N.4091401.962 E.746442.832
OM2	AUX BOILER	N.4091331.348 E.746642.682
OM3	AUX BOILER	N.4091331.567 E.746650.179
OM4	STANDBY GENERATOR	N.4091330.801 E.746562.868
OM5	FIRE PUMP HOUSE	N.4091438.631 E.746637.943
OS1	STACK	N.4091219.388 E.746849.224
1C2	COAL UNLOADING CONVEYOR	N.4091451.830 E.746859.615
1C3	COAL CONVEYOR	N.4091501.292 E.746745.205
1C5	COAL CRUSHER BUILDING	N.4091548.848 E.746704.508
1C6	COAL CONVEYOR	N.4091436.970 E.746709.185
1B1	BOTTOM ASH SILO FILTER VENT	N.4091250.195 E.746669.380
1B2	BOTTOM ASH SILO FILTER DISCHARGE	N.4091250.195 E.746669.380
1F1	FLYASH SILO FILTER VENT	N.4091266.066 E.746984.099
1F2	FLYASH SILO FILTER DISCHARGE	N.4091266.066 E.746984.099
1G1	GYPSUM SILO FILTER VENT	N.4091264.758 E.746941.191
1G2	GYPSUM SILO FILTER DISCHARGE	N.4091264.758 E.746941.791
1L1	QUICKLIME SILO VENT	N.4091313.609 E.747019.338
1LC1	ACTIVATED CARBON SILO	N.4091227.195 E.746751.055
1LC2	QUICKLIME SILO	N.4091227.640 E.746766.289
1BP1 1BP2	BYPRODUCTS FILTER VENT BYPRODUCTS FILTER DISCHARGE	N.4091307.666 E.746939.884

LEGEND

1. STACK
2. TURBINE
3. CONTROL ROOM / ADMIN
4. NOT USED
5. STANDBY GENERATOR
6. AUX BOILER
7. WORKSHOP/WAREHOUSE
8. BOILER
9. BOTTOM ASH SILO
10. COAL CONVEYOR
11. AUX.TRANSFORMER
12. GENERATOR STEP-UP TRANSFORMER
13. START-UP TRANSFORMER
14. 4160V TRANSFORMER
15. PARKING
16. WATER TREATMENT BUILDING
17. DEMIN WATER TANK
18. RO STORAGE TANK
19. RAW WATER STORAGE
20. FIRE PUMP HOUSE
21. SUBSTATION CONTROL BUILDING
22. BYPRODUCT HANDLING
23 POWER DISTRIBUTION CENTER
24. COAL CRUSHER BUILDING
25. STACKER AND RECLAIMER
26. RAILCAR BOTTOM DUMP UNLOADER
27. POWER DISTRIBUTION CENTER
28. NOT USED
29. AMMONIA STORAGE AND UNLOADING
30. POWER DISTRIBUTION CENTER
31. ID FAN
32. NOT USED
33. MERCURY REMOVAL
34. BAGHOUSE
35. ABSORBER
36. CEMS BUILDING
37. QUICKLIME SILO AND HANDLING
38. HYDRATED QUICKLIME DAY TANK
39. FLYASH SILO
40. GYPSUM SILO
41. SWITCHYARD
42. NOT USED
43. RAILROAD
44. DRY NATURAL DRAFT COOLING TOWER
45. QUICKLIME / ACTIVATED CARBON SILOS
46. COAL UNLOADING CONVEYOR
47. NOT USED
48. FENCE
49. ACID/CAUSTIC TANKS
50. ZLD BUILDING
51. ZLD SOLIDS UNLOADING
52. GATEHOUSE
53. COAL CONVEYOR
54. 30 DAY ACTIVE COAL STORAGE
55. COAL GRATE
56. 90 DAY PASSIVE COAL STORAGE
57. NOT USED
58. NOT USED
59. BYPRODUCTS / WASTE SILO
60. NOT USED
61. FUEL OIL STORAGE AND UNLOADING
62. BRINE CONCENTRATOR TEMPORARY SURGE WATER POND.
63. WAREHOUSE 150'x300' WITH 15' PAD AT END FOR HAZARDOUS MATERIAL STORAGE.

PRELIMINARY
AS OF JUNE 25,2007
NOT FOR CONSTRUCTION

0 100' 200' 300' 400' 500' 600'
SCALE (ft)

0 50m 100m 150m 200m
SCALE (m)

NO	REVISIONS	DATE	BY	CHK	DSNR	APPR
H	REVISE PER CLIENT REQUEST					
G	REVISE PER CLIENT REQUEST					
F	REVISE PER CLIENT REQUEST					
E	REVISE PER CLIENT REQUEST					
D	REVISE PER CLIENT REVIEW					
C	PLANT RE-LOCATED PER CLIENT REQUEST					
B	RAIL SPURS,COAL STORAGE ,EQUIPMENT ADDED.					
A	ISSUED FOR CLIENT COMMENT					

UTILITY ENGINEERING
HEADQUARTERS
1515 ARAPAHOE STREET TOWER 1, SUITE 900 DENVER, CO. 80202
AMARILLO, TEXAS GROTON, CONNECTICUT MINNEAPOLIS, MINNESOTA

SITHE
Global Power, LLC

TOQUOP POWER PROJECT
SITHE GLOBAL POWER
TOQUOP POWER PROJECT
CONCEPTUAL GENERAL ARRANGEMENT
UNIT 1

DRAWN	DESIGNED	CHECKED	CHECKED
L. COTE 6/25/07			

APPROVED	CADD DRAWING NUMBER	SHEET	REV
APPROVED	D012350-100L100	01	H

2:49:19 PM
6/25/2007
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